



UNITED STATES PATENT AND TRADEMARK OFFICE

A

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,321	12/18/2001	Michael S. Milillo	2001-053-ICE	2261

51344 7590 10/05/2005

STORAGE TECHNOLOGY CORPORATION
ONE STORAGE TEK DRIVE, MS-4309
LOUISVILLE, CO 80028-4309

EXAMINER

CHERY, MARDOCHEE

ART UNIT PAPER NUMBER

2188

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/023,321

Applicant(s)

MILILLO ET AL.

Examiner

Mardochee Chery

Art Unit

2188

—The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

THE REPLY FILED 14 September 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1,4-6 and 9-22.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See attached.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____.
13. ☐ Other: _____.

Mano Padmanabhan
9/30/05

MANO PADMANABHAN

DETAILED ACTION

1. This Office Action is in response to Applicant's communication filed on September 14, 2005 in response to PTO Office Action mailed on May 11, 2005. The applicant's remarks and amendments to the claims and/or the specification were considered with the results that follow.
2. In response to the last Office Action, mailed on May 11, 2005, claim 1 has been amended for typographical error. As a result, claims 1, 4-6, and 9-22, remain pending in this application.
3. The objection to claims 1 has been withdrawn due to the amendment filed on February 25, 2005.

Response to Arguments

4. Applicant argues on page 7 of the remarks that the "391 patent" does not teach "making a copy of a data record in cache memory", rather, "making a copy of a data record in the virtual storage system by generating a pointer to reference the same physical memory location of that record".

Examiner would like to point out that, (in addition to "making a copy of a data record in the virtual storage system by generating a pointer to reference the same physical memory location of that record"), the '391' patent clearly teaches "making a copy of a data record in cache memory" [the data record is staged to an associated cache memory or a copy of the data record is in cache memory; a data record copy operation in cache memory 113; Abstract and col.14, lines 8-14]. Thus, Examiner

Art Unit: 2188

traverses Applicant's arguments regarding "making a copy of a data record in cache memory".

5. Applicant argues on page 8 of the remarks that the '391' patent does not do "staging a data record in the context of the Applicant's invention", mainly "staging a data object associated with first virtual addresses into a cache, and generating a pointer for use in pointing to that data object staged in the cache when a storage device location identifier of a data object associated with a second virtual address matches that of the data object associated with the first virtual address".

Examiner totally disagrees. Examiner would like to point out that, in addition to Applicant acknowledgment on page 8, par.2, that the '391' discloses [generating pointers, staging and making copy of data record associated with a cache]; the '391' patent also discloses "staging an original data record to an associated cache memory with the virtual addresses of the data record, and generating pointers stored in the virtual memory mapping tables to record the virtual addresses of the data record and to reference memory locations of data record staged in the cache memory where consistent staging is maintained by loading virtual addresses of the data record matching pointers pointing to records in the mapping tables, the hash table and collision list as shown in Fig.3; Abstract, col.3, lines 17-22; col.13, lines 42-59. Furthermore, the '391' patent discloses "making a copy of a selected data record and generating a new set of pointers referencing memory locations and an original set of reference pointers; col.2, lines 12-40.

6. Applicant argues on page 8, that the '391' patent is unrelated to and not the same as the Applicant's claimed invention.

Examiner would like to mention that both the Applicant's claimed invention and the '391' patent are directed to the use of cache memory in a storage system.

Conclusion

7. When responding to the office action, Applicant is advised to clearly point out the patentable novelty that he or she thinks the claims present in view of the state of the art disclosed by references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. 1.111(c).

8. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mardochee Chery whose telephone number is (571) 272-4246. The examiner can normally be reached on 8:30A-5:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Manonama Padmanabhan can be reached on (571) 272-4210. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 27, 2005



Mardochee Chery
Patent Examiner
AU2188